REMEMBER, a comprehensive traffic control PS&E is actually a project within a project. WSDOT is obligated to provide a safe and workable proposal for controlling traffic that is consistent with the project construction requirements. Even though there may be more than one workable solution, a thorough analysis of all the variables will help to produce a traffic control PS&E that sets the appropriate level of safety. The Work Zone Traffic Control Design Checklist must be thoroughly reviewed to assist in capturing all related work zone elements.

PROJECT DEFINITION & PLANNING

- ☐ **Work Zone Traffic Control Strategy Statement for Design Documents**
  - ☐ **Informal in-house conference with PEO & Region WZTC specialist**
  - ☐ **WZTC options and strategies**
  - ☐ formal conference with local agencies & WSDOT
  - ☐ **Final WZTC strategy statement for project definition documentation**
  - ☐ **Traffic Management Plan**
- ☐ **Work Zone Capacity Analysis**
  - ☐ **Existing level of service**
  - ☐ **Existing lane capacity (VPHPL)**
  - ☐ **Work hour restrictions (days & hours)**
  - ☐ **Detour route capacity analysis**
  - ☐ **Select appropriate work zone type(s)**
    - (1) long-term stationary
    - (2) intermediate stationary
    - (3) short-term stationary
    - (4) short-duration
    - (5) mobile
- ☐ **Existing Operational Factors**
  - ☐ **Coordinate with region traffic operations**
  - ☐ **Localized traffic operational problems**
  - ☐ **Accidents (include previous WZTC, maintenance or contract)**
  - ☐ **Geometric conflicts or issues**
  - ☐ **High-speed/low-speed**
  - ☐ **Coordinate with local maintenance supervisor**
  - ☐ commercial/private access impacts
  - ☐ adjacent project coordination
  - ☐ special events
  - ☐ ferry schedules
  - ☐ seasonal factors
  - ☐ on-street parking
  - ☐ emergency services
  - ☐ other regulatory conditions
  - ☐ transit, schools, parks, etc.
- ☐ **Work Zone Location Considerations**
  - ☐ **Define all work zone limits/locations**
  - ☐ existing lane conflicts
  - ☐ roadside conflicts/hazards
  - ☐ overhead & overwidth clearance conflicts
  - ☐ vertical/grade/profile conflicts
  - ☐ staged work zones
  - ☐ work zone base plan (CADD files & aerial photo)
- ☐ **Worker Safety**
  - ☐ **Positive protection (barriers)**
  - ☐ **Worker exposure during:**
    (1) set up
    (2) removal
    (3) work operations
  - ☐ **Flagger protection (no freeway use)**
  - ☐ **Truck-mounted attenuator**
  - ☐ **Portable barriers (temporary concrete, movable barrier, steel, etc.)**
  - ☐ **Inspector protection**
  - ☐ **Work zone intrusion analysis & mitigation techniques**

NOTES:

Required checklist items are **bold**.

Not all items listed on the checklist apply to every project, but it does provide a comprehensive list of possible items that may apply and should be considered when applicable.

Work Zone Traffic Control Design Checklist
Figure 810-4

TYPES OF WORK ZONE TRAFFIC CONTROL

☐ **Long-Term**

STRATEGY	*PLAN TYPE*
☐ total road closure	detour
☐ partial road closure	crossover
☐ interchange closure	detour
☐ ramp closure	detour/alt route
☐ crossroad closure	detour/alt route
☐ lane shift	**Temporary channelization**
☐ lane closure	temporary channelization
☐ shoulder closure	temporary channelization
☐ reversible lanes	TCP
☐ temp./portable traffic signal control	TCP
☐ temp. yield/stop control	TCP
☐ temp. widening/connections	temporary channelization
☐ temp. structures	temporary channelization
☐ staged traffic control	staging plans

☐ Short-Term

STRATEGY	*PLAN TYPE*
☐ off-peak roadway closures:	detour
(1) total & partial road closure	detour
(2) interchange & ramps	detour/alt route
(3) crossroad, intersection	detour/alt route
☐ off-peak lane closures	TCP
☐ shoulder closure	TCP
☐ flagger control	TCP
☐ pilot car control	TCP
☐ traffic stop	TCP

Refer to the MUTCD for guidelines on work zone type and duration.

☐ **Construction Considerations for WZTC**

- ☐ **Removal of permanent traffic control features**
- ☐ **Maintaining existing features (illumination, signing, etc.)**
- ☐ **Work area access control (safe ingress & egress)**
- ☐ **Adequate work zone space for contractor**
- ☐ **Time frame to complete work and reopen to traffic**
- ☐ innovative work methods
- ☐ time-saving materials
- ☐ temporary illumination or signals
- ☐ winter shut-down (intermediate WZTC stage?)
- ☐ cure time, closure pours
- ☐ temporary drainage
- ☐ construction/traffic compatibility
- ☐ staged WZTC switchover time to new stage (pavement marking revisions)
- ☐ existing shoulder durability for temporary lane shift (shoulder failure)

Refer to the MUTCD, the *Traffic Manual*, the *Design Manual*, the Standard Specifications, and the *Construction Manual* for further guidance.

Work Zone Traffic Control Design Checklist (continued)
Figure 810-4

TRAFFIC CONTROL FEATURES

- ☐ **Work Zone Devices**
  - ☐ work zone ITS
  - ☐ portable/temp. traffic signal
  - ☐ intrusion alarms
  - ☐ truck-mounted attenuator
  - ☐ buffer/shadow vehicles
  - ☐ high-level warning flags
  - ☐ glare/work zone screen
  - ☐ pedestrian fence
  - ☐ automated flagger assistance device
  - ☐ portable HARs
  - ☐ port. changeable message sign
  - ☐ advance notice of closure signs
  - ☐ speed advisory signs
  - ☐ regulatory speed zone signs
  - ☐ temporary rumble strips
- ☐ **Special Considerations**
  - ☐ **WSP assistance**
  - ☐ **Public information**
  - ☐ **Night work**
  - ☐ **Oversized loads**
  - ☐ **Peds and bikes (ADA needs)**
  - ☐ **WZTC supervisor**
  - ☐ **WZTC patroller**
  - ☐ roadway flares
  - ☐ reduced sight distance
  - ☐ safe speed for temp. alignment (ball bank)
  - ☐ liquidated damages
  - ☐ A+B bidding, lane rental, etc.
  - ☐ innovative contract techniques
  - ☐ haul routes
  - ☐ blasting operations
  - ☐ emergency traffic control
  - ☐ emergency parking
- ☐ **Special Lighting**
  - ☐ **Flagger station illumination**
  - ☐ detour illumination
  - ☐ temporary illumination
  - ☐ high mast lighting
  - ☐ warning lights
- ☐ **Work Zone/Positive Protection**
  - ☐ **Roadside hazard protection**
  - ☐ **Buffer space (lateral and longitudinal)**
  - ☐ temporary impact attenuators
  - ☐ barrier/guardrail connections
  - ☐ movable concrete barrier
  - ☐ water-filled barrier
  - ☐ temporary concrete barrier
  - ☐ barricades
  - ☐ recovery area
  - ☐ shy distance
- ☐ **Positive Continuous Guidance**
  - ☐ temporary RPMs
  - ☐ temporary pavement marking
  - ☐ mimic permanent markings
  - ☐ traffic safety drums
  - ☐ type "c" steady burn lights
  - ☐ reduced device spacing
  - ☐ temporary guidepost

Work Zone Traffic Control Design Checklist (continued)

Figure 810-4

DESIGN CONSIDERATIONS

- ☐ preliminary field review
- ☐ design with existing driver expectation in mind
- ☐ design for existing speed: posted or higher
- ☐ start design from work zone perspective
- ☐ design based on the most desirable, yet practical, traffic configuration
- ☐ design from drivers' point of view
- ☐ layout temporary channelization
- ☐ build in recovery area and buffer space
- ☐ provide adequate detail (station callouts for temporary features) for field layout
- ☐ temporary channelization must provide positive driver guidance
- ☐ clear separation between work zone and traffic (use positive protection?)
- ☐ use permanent design guidelines whenever possible
- ☐ build in work area ingress and egress access
- ☐ design above minimums when possible
- ☐ establish highly visible sign locations (verify where possible, field review, SRView, etc.)
- ☐ don't depend on signs to guide traffic
- ☐ mentally drive through the TCP from all approaches and all lanes
- ☐ will TCP actually fit site conditions? (scaled site-specific plan)
- ☐ final field review
- ☐ risk assessment: comfortable with level of safety, liability issues?
- ☐ constructibility issues (can this be built?)
- ☐ final approval with traffic engineer and construction P.E.

PROJECTED IMPACTS

- ☐ **Worker/traffic exposure**
- ☐ **Local agency impact**
- ☐ **Coordination with region PIO for public awareness & media notification**
- ☐ traffic delay (time)
- ☐ user costs ($)
- ☐ backups (queue length)
- ☐ traffic control costs
- ☐ constructibility issues
- ☐ commercial impacts
- ☐ overlapping project coordination/WZTC conflicts
- ☐ conflicts with existing permanent traffic control features, signs, markings, etc.
- ☐ removal of existing conflicting pavement markings
- ☐ reversed/revised intersection control

FINAL APPROVAL

- ☐ **Regional Traffic Engineer or Regional Traffic Control Specialist**
- ☐ **Regional Management Approval**
- ☐ **Construction P.E. Concurrence**
- ☐ **Consistent with FHWA (MUTCD) & WSDOT policies**
- ☐ Detour Agreement Approval
- ☐ WSP Agreement Approval
- ☐ Local Agency Approvals & Agreements
- ☐ Noise Ordinance
- ☐ Blasting Ordinance

Work Zone Traffic Control Design Checklist (continued)
Figure 810-4